

FISHERY RESEARCH



FEDERAL AID IN
FISH RESTORATION

JOB PERFORMANCE REPORT, PROJECT NO. F-73-R-11
SALMON AND STEELHEAD INVESTIGATIONS
JOB 1: Estimate 1987-88 Steelhead Season
Harvest and Effort (Telephone Survey)



by

Thomas J. McArthur
Fisheries Staff Biologist

August 1989

TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT	1
OBJECTIVE	2
TECHNIQUES USED	2
FINDINGS	2

LIST OF TABLES

Table 1.	Estimated angler participation and harvest in the Idaho spring steelhead fishery, 1987	7
Table 2.	Total number of steelhead anglers, days fished, and fish caught for resident and nonresident anglers in spring 1987 by section and drainage	8
Table 3.	Total number of steelhead anglers, days fished, and fish caught for resident anglers in spring 1987 by section and drainage	9
Table 4.	Total number of steelhead anglers, days fished, and fish caught for nonresident anglers in spring 1987 by section and drainage	10
Table 5.	Total number of steelhead harvested in spring 1987 for resident and nonresident anglers by section and month	15
Table 6.	Total number of steelhead harvested in spring 1987 for resident anglers by section and month	16
Table 7.	Total number of steelhead harvested in spring 1987 by nonresident anglers by section and month. . .	17

LIST OF FIGURES

Figure 1.	Preliminary letter sent to steelhead permit buyers that were selected for 1987 spring harvest survey.	3
Figure 2.	Script used by telephone interviewers	5
Figure 3.	Percentage of resident and nonresident steelhead anglers fishing a given number of days	11
Figure 4.	Percentage of nonresident steelhead anglers fishing a given number of days	12

LIST OF FIGURES CONTINUED

Page

Figure 5. Percentage of resident steelhead anglers fishing a given number of days	13
Figure 6. Percentage of resident and nonresident steelhead anglers catching a given number of steelhead. . . .	14

APPENDICES

Appendix I. List of steelhead fishing holes within a given section	18
Appendix II. 1987 Spring Steelhead Regulations	20

JOB PERFORMANCE REPORT

State of: Idaho

Name: SALMON AND STEELHEAD INVESTIGATIONS

Project No. : F-73-R-10 **Title:** Estimated 1987 Spring Steelhead Season
Harvest and Effort (Telephone Survey)

Subproject: II

Study: .I

Job No: 1

Period Covered: March 1, 1987 to February 29, 1988

ABSTRACT

An estimated total of 19,315 anglers out of 26,987 steelhead permit holders fished 106,109 days in the spring season of 1987. The estimated number of steelhead landed by anglers reached an estimated 41,435 fish. Anglers kept 19,805 steelhead while releasing 21,630 steelhead composed of 13,152 wild fish and 8,478 hatchery steelhead.

Author:

Thomas J. McArthur
Fisheries Staff Biologist

OBJECTIVE

To obtain spring estimates of steelhead harvests by major drainage.

TECHNIQUES USED

In July 1987, spring season steelhead harvest and fishing efforts were obtained from a telephone survey, as reported by Pollard (1985). A random sample of 4,600 (17%), out of the 26,897 steelhead permit holders was obtained from the State Auditor's IBM mainframe computer using a program SAS (Statistical Analysis Systems 1982).

Each angler selected for the survey was mailed a preliminary letter explaining the purpose of the survey and the questions to be asked (Figure 1). The letter was followed within two weeks by a phone call from one of the five telephone interviewers. The telephone interviewers were trained to solicit complete replies and read from a standard script (Figure 2) so that the questions were asked of the interviewees in the same manner. A list of the names of the fishing holes was also provided to the interviewers so that the correct section could be determined (Appendix I).

The telephone list was gone through completely four times by the interviewers in an effort to contact as many anglers as possible within the one month period of the survey. Each completed telephone response or completed survey letter was immediately entered in the Idaho Department of Fish and Game's Honeywell 695 minicomputer on DEF II. After the survey was completed, the data was downloaded from the minicomputer to a personal computer into a dBase III+ file. Manipulation of the data was accomplished within dBase III+. The estimates of fishing pressure and harvest was accomplished using LOTUS and SYSTAT.

FINDINGS

The spring steelhead fishing season in 1987 was open from January 1 through April 30. Daily bag limits allowed either 2 or 3 fish per day, 4 or 9 in possession, and 10 or 20 per season depending on the river drainage (Appendix II). Also in the spring of 1987, anglers were required to release wild steelhead, as determined by a dorsal fin height or the presence of an adipose fin.

A total of 26,897 steelhead permits were sold in the spring of 1987 with 3,129 (11.6%) permit holders contacted for the telephone survey. The sample was composed of 2,718 (86.9%) residents and 411 (13.1%) nonresidents. An estimate of the composition of steelhead angler population was between 85.4% and 88.1% residents with 11.8% and 14.5% being nonresidents, at .95 confidence interval. The expanded estimates for resident permits was 23,374 (+/- 363) and for nonresident permits 3,523 (+/- 363).



600 South Walnut • Box 25
Boise, Idaho 83707

June, 1987

We are seeking information regarding steelhead fishing in Idaho during the 1987 spring steelhead season (January 1 through April 30, 1987). Your assistance in answering the following questions will help the future of steelhead fishing. Please take a few minutes to fill in the answers to the questions below and place this letter near your telephone. PLEASE DO NOT RETURN THIS LETTER BY MAIL (unless you have no telephone). In the near future, you will receive a telephone call asking the following questions:

1. Did you fish for steelhead in Idaho during the 1987 spring season?

Yes _____ No _____

2. How many days did you fish in each river section? (See river section list on back of this sheet.)

Number of days fished	River	Section number
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

3. Did you catch one or more steelhead (including fish released)?

Yes _____ No _____

4. If you caught and released steelhead, how many did you release, by river section?

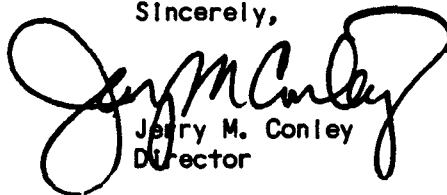
Number released		River	Section number
Hatchery fish	Wild fish		
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Figure 1. Preliminary letter sent to steelhead permit buyers that were selected for 1987 spring harvest survey.

5. If you caught and kept steelhead, how many did you harvest by date and river section? (Check dates recorded on your steelhead permit.)

	Date	River	Section number
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

Sincerely,


 Jerry M. Conley
 Director

River	Section number	River	Section number
Snake River, below Salmon River.....	01	Salmon River, Vinegar Creek to South Fork.....	13
Snake River, above Salmon River.....	02	Salmon River, South Fork to Middle Fork.....	14
Clearwater River, below Orofino Bridge.....	03	Salmon River, Middle Fork to North Fork.....	15
Clearwater River, above Orofino Bridge.....	04	Salmon River, North Fork to Lemhi River.....	16
North Fork Clearwater River.....	05	Salmon River, Lemhi River to Pahsimeroi River..	17
Middle Fork Clearwater River.....	06	Salmon River, Pahsimeroi River to East Fork....	18
South Fork Clearwater River.....	07	Salmon River, above the East Fork.....	19
Salmon River, below Whitebird Creek.....	10	S Snake River, Oxbow.....	27
Salmon River, Whitebird Creek to Little Salmon..	11	Boise River.....	28
Salmon River, Little Salmon to Vinegar Creek...	12		

Figure 1. Continued.

Hello, this is _____ with the Idaho Department of Fish and Game calling for _____

Your name was selected from among those who purchased a permit to fish for steelhead in fall 1987 and I would like to ask you a few questions so we can estimate the catch of steelhead during the spring season.

Did you fish for steelhead in Idaho between January 1, and April 30, 1987?

[No]

I have no more questions. Thank you for your help.

[Yes]

How many days did you fish in each river section?

# Days	Section#
--------	----------

Did you catch any steelhead including any that you might have released?

[No]

I have no more questions. Thank you for your time and assistance.

[Yes]

Did you catch and release any steelhead?

[Yes]

How many steelhead released were hatchery fish and how many were wild fish, by section.

[No]

(Go to next question.)

Did you catch and keep any steelhead during the 1987 spring season?

[Yes]

What was the date and river section for each fish kept?

[No]

[Go to closing statement.]

These are all the questions I have. On behalf of the Idaho Department of Fish and Game, I thank you for your help.

Figure 2. Script used by telephone interviewers.

A total of 19,315 (71.8%) anglers fished for steelhead in the spring of 1987 (Table 1). The number of residents participating was 16,426 (70.3%) while nonresidents participating was 2,889 (81.7%). The number of resident and nonresident anglers that fished more than one river section was calculated by summing the individual anglers participating in individual sections, 25,224 then subtracting 19,315 yielding 5,910 (30.1%)(Table 2).

Total effort was 106,109 days with resident anglers fishing 91,307 days while nonresidents fished 14,802 days (Tables 1, 2, 3, 4). The mean number of days fished (including the anglers that did not fish) was 4.0 overall, with nonresidents averaging 4.3 days and residents averaging 3.9 days. For all distributions (Resident, Nonresident, and combined), a mode of two days occurred (Figures 3,4,5).

The number of anglers catching at least one fish was 7,994 (41.4%). The number of resident anglers meeting the same criteria was 6,670 (40.6%) while the nonresidents in the same category totaled 1,324 (45.8%).

The steelhead harvest in the spring of 1987 increased to 19,805, compared to 1985 (13,642) (Hall-Griswold 1987) and 11,699 in 1986 (McArthur 1988). Residents harvested at total of 16,840 steelhead while nonresidents harvested 2,965. The distribution of the number of fish harvested by individual anglers, resident and nonresident combined, is shown in Figure 6. There was no difference in harvest distributions of resident and nonresident anglers.

Among the major drainages, the Salmon River received the most pressure (60,678 days) and the highest number of fish caught 23,967 including the catch-and-release fish. These results also mimic the 1986 effort and harvest estimates (McArthur 1988). March was the most productive spring month, resulting in 8,767 fish being harvested (7,264 by residents and 1,503 by nonresidents)(Tables 5, 6, 7). The highest catch rate occurred on the Snake River sections with an average of 1.8 days per fish for resident anglers. Nonresidents averaged 4.6 days per steelhead in the Snake River sections.

In the spring of 1987, regulations for steelhead fishing encouraged or required the release of wild steelhead. Anglers released 21,630 (8,478 hatchery fish and 13,152 wild fish) while harvesting 19,805. This pattern of releasing more fish than harvesting is similar to the previous year and probably resulted from increasing numbers of steelhead returning to Idaho.

Table 1. Estimate angler participation and harvest in the Idaho spring steelhead fishery, 1987.

	Estimate	Upper confidence interval	Lower confidence interval
Number that did fish	19,315	19,796	18,817
Resident	16,426	16,880	15,954
Nonresident	2,289	3,031	2,720
Number of days fished	106,109	107,869	104,349
Resident	91,307	92,939	89,695
Nonresident	14,802	15,462	14,142
Number anglers that caught	7,994	8,529	7,469
Resident	6,670	7,163	6,187
Nonresident	1,324	1,530	1,120
Number of hatchery fish released	8,478	10,520	6,336
Resident	6,990	8,922	5,078
Nonresident	1,488	2,148	828
Number of wild fish released	13,152	15,282	11,022
Resident	10,969	11,911	10,027
Nonresident	2,183	2,843	1,523
Total number fished released	21,630	25,711	18,179
Resident	17,959	21,118	14,798
Nonresident	3,671	5,091	2,251
Total number fished kept	19,805	21,595	18,015
Resident	16,840	18,518	15,162
Nonresident	2,965	3,606	2,324
Total number of anglers = 26,89			
Residents sampled = 2,718			
Nonresidents sampled = 411			
TOTAL SAMPLED = 3,129			

Table 2. Total number of steelhead anglers, days fished, and fish caught for resident and nonresident anglers in spring 1987 by section and drainage.

Section	Number of anglers	Number of days fished	Hatchery fish released	Wild fish released	Number of fish harvested	Fish per day
SNAKE RIVER						
1	903	4,195	240	1,573	489	0.549
2	507	1,505	9	507	345	0.572
Snake R. totals	1,410	5,700	249	2,080	834	0.555
CLEARWATER RIVER						
3	2,381	12,533	1,341	1,814	2,235	0.430
4	1,410	6,404	223	696	1,108	0.317
5	2,528	12,636	722	937	3,052	0.373
6	430	2,648	77	344	560	0.370
7	508	3,490	147	86	679	0.261
Clearwater R. totals	7,257	37,711	2,510	3,877	7,634	0.372
SALMON RIVER						
10	748	2,604	447	550	438	0.551
11	704	1,943	9	241	326	0.296
12	1,281	3,825	129	636	593	0.355
13	327	1,375	9	155	34	0.144
14	1,015	3,825	370	1,014	928	0.604
15	3,129	12,447	765	1,779	2,915	0.439
16	1,805	6,971	395	464	697	0.223
17	2,476	11,656	1,479	774	2,217	0.383
18	1,281	5,063	628	335	550	0.299
19	2,527	8,141	1,084	1,075	1,513	0.451
20	868	2,828	370	172	876	0.501
Salmon R. totals	16,161	60,678	5,685	7,195	11,087	0.395
Oxbow	9	34	0	0	9	0.265
Boise R.	387	1,986	34	0	241	0.138
STATEWIDE TOTAL	25,224	106,109	8,478	13,152	19,805	0.390

Table 3. Total number of steelhead anglers, days fished, and fish caught for resident anglers in spring 1987 by section and drainage.

Section	Number of anglers	Number of days fished	Hatchery fish released	Wild fish released	Number of fish harvested	Fish per day
SNAKE RIVER						
1	791	3,542	223	1,521	437	0.616
2	464	1,410	9	481	328	0.580
Snake R. totals	1,255	4,952	232	2,002	765	0,606
CLEARWATER RIVER						
3	1,986	10,745	765	1,066	1,642	0.323
4	1,040	5,149	120	593	884	0.310
5	1,797	8,759	395	653	2,210	0.372
6	335	2,072	34	181	362	0.278
7	456	3,378	138	86	636	0.255
Clearwater R. totals	5,614	30,103	1,452	2,579	5,734	0.324
SALMON RIVER						
10	550	1,891	404	524	412	0.709
11	670	1,874	9	241	326	0.307
12	1,238	3,713	103	636	593	0.359
13	275	1,152	9	155	34	0.172
14	817	3,155	284	739	833	0.588
15	2,622	10,341	688	1,375	2,373	0.429
16	1,487	6,129	352	387	577	0.215
17	2,338	11,183	1,393	748	2,149	0.384
18	1,212	4,401	628	335	524	0.338
19	2,355	7,625	1,032	1,075	1,392	0.459
20	<u>851</u>	<u>2,768</u>	<u>370</u>	<u>172</u>	<u>876</u>	<u>0.512</u>
Salmon R. totals	14,415	54,232	5,272	6,387	10,089	0.401
Oxbow	9	34	0	0	9	0.265
Boise R.	<u>387</u>	<u>1,986</u>	<u>34</u>	<u>0</u>	<u>241</u>	<u>0.138</u>
STATEWIDE TOTALS	21,680	91,307	6,990	10,968	16,838	0.381

Table 4. Total number of steelhead anglers, days fished, and fish caught for nonresident anglers in spring 1987 by section and drainage.

Section	Number of anglers	Number of days fished	Hatchery fish released	Wild fish released	Number of fish harvested	Fish per day
SNAKE RIVER						
1	112	653	17	52	52	0.185
2	43	95	0	26	17	0.453
Snake R. totals	155	748	17	78	69	0.219
CLEARWATER RIVER						
3	395	1,788	576	748	593	1.072
4	370	1,255	103	103	224	0.343
5	731	3,877	327	284	842	0.375
6	95	576	43	163	198	0.701
7	52	112	9	0	43	0.464
Clearwater R. totals	1,643	7,608	1,053	1,298	1,900	0.559
SALMON RIVER						
10	198	713	43	26	26	0.133
11	34	69	0	0	0	0.000
12	43	112	26	0	0	0.232
13	52	223	0	0	0	0.000
14	198	670	86	275	95	0.681
15	507	2,106	77	404	542	.486
16	318	842	43	77	120	0.285
17	138	473	86	26	68	0.381
18	69	662	0	0	26	0.039
19	172	516	52	0	121	0.335
20	<u>17</u>	<u>60</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.000</u>
Salmon R. totals	1,746	6,446	413	808	998	0.344
Oxbow	0	0	0	0	0	0.000
Boise R.	0	0	0	0	0	0.000
STATEWIDE TOTALS	3,544	14,802	1,488	2,184	2,967	0.449

1987 SPRING STEELHEAD TELEPHONE SURVEY

COMBINED RESIDENT AND NONRESIDENT

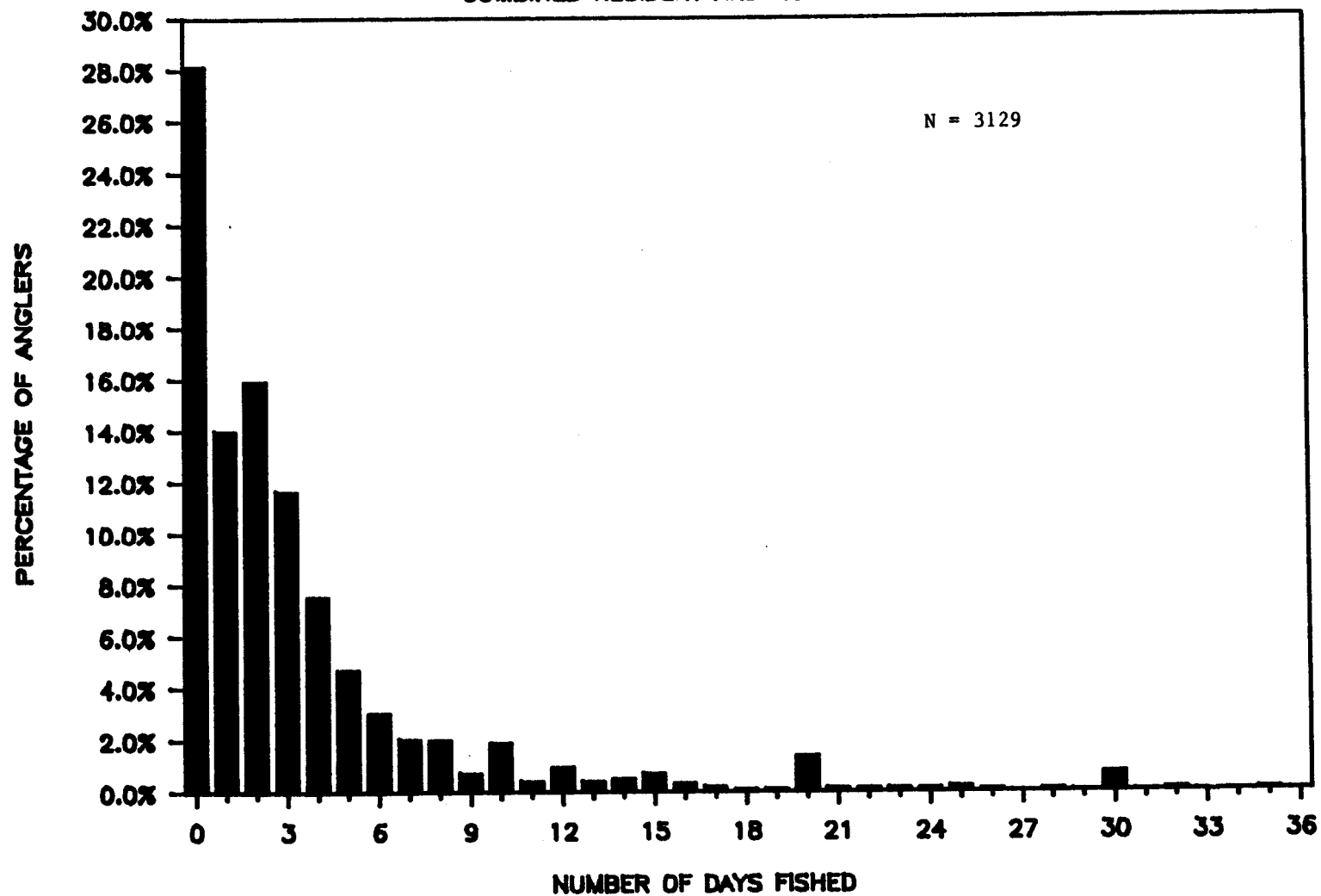


Figure 3. Percentage of resident and nonresident steelhead anglers fishing a given number of days.

1987 SPRING STEELHEAD TELEPHONE SURVEY

NONRESIDENT ANGLERS

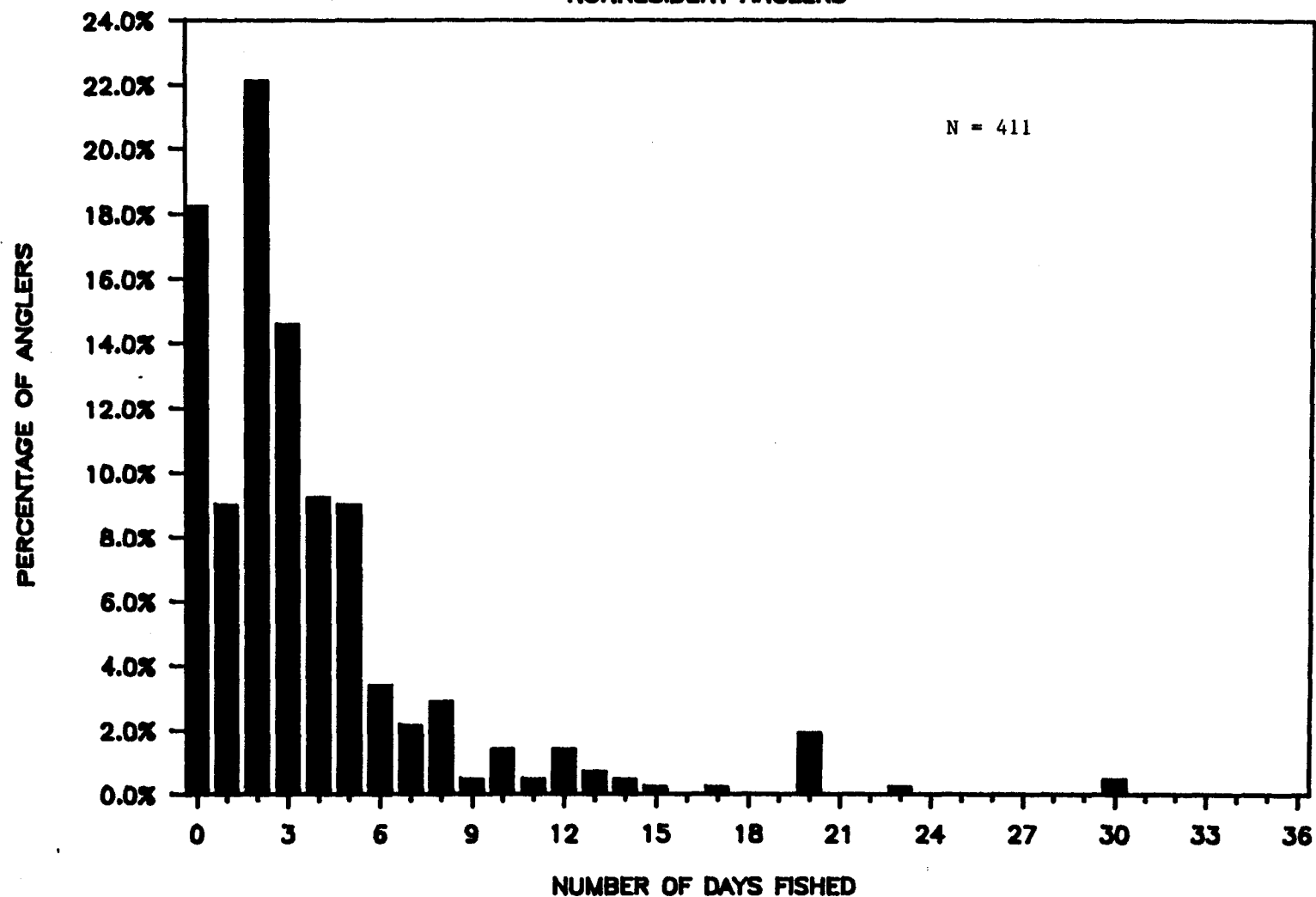


Figure 4. Percentage of nonresident steelhead anglers fishing a given number of days.

1987 SPRING STEELHEAD TELEPHONE SURVEY

RESIDENT ANGLERS

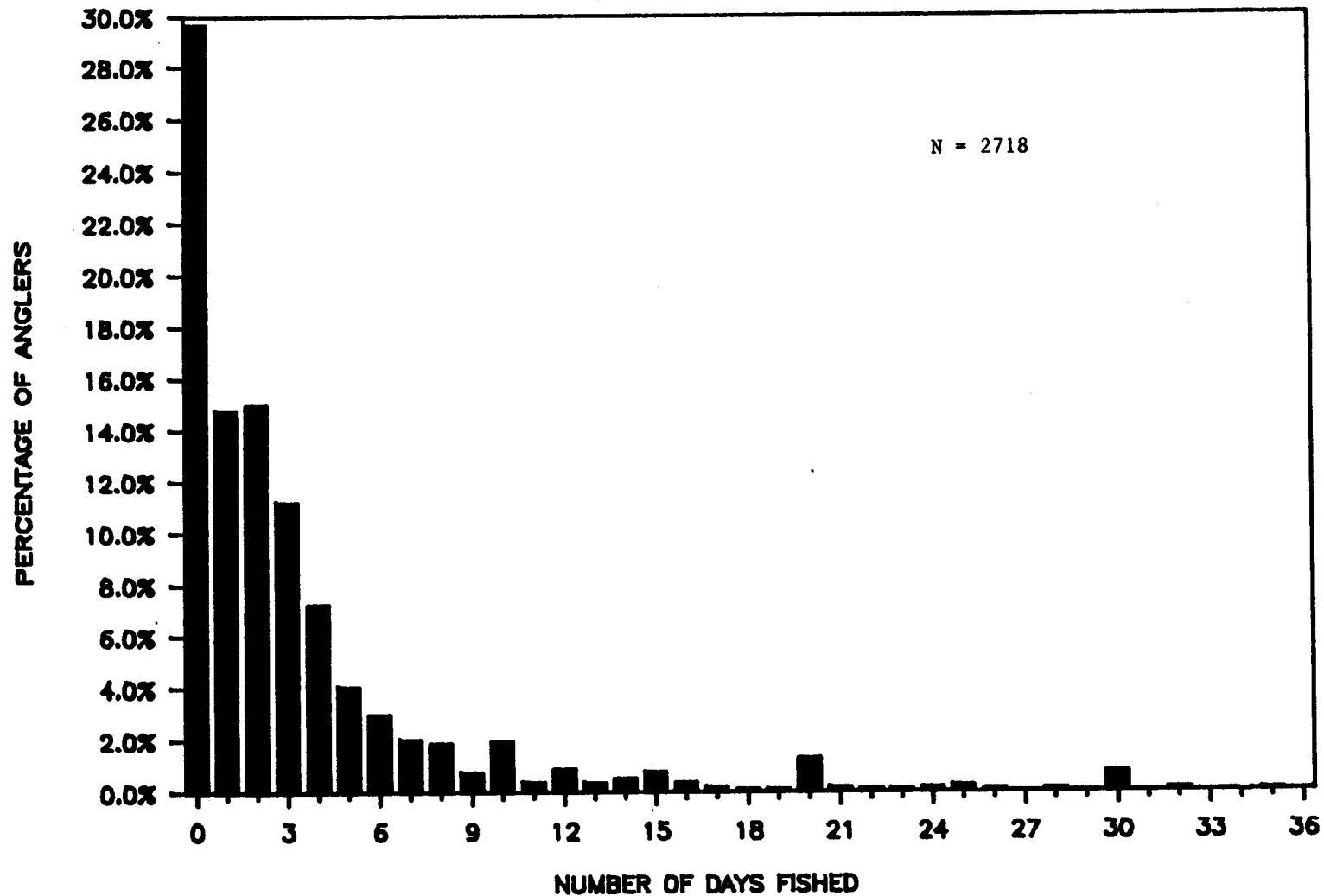


Figure 5. Percentage of resident steelhead anglers fishing a given number of days.

1987 SPRING STEELHEAD SURVEY

COMBINED RESIDENT AND NONRESIDENT

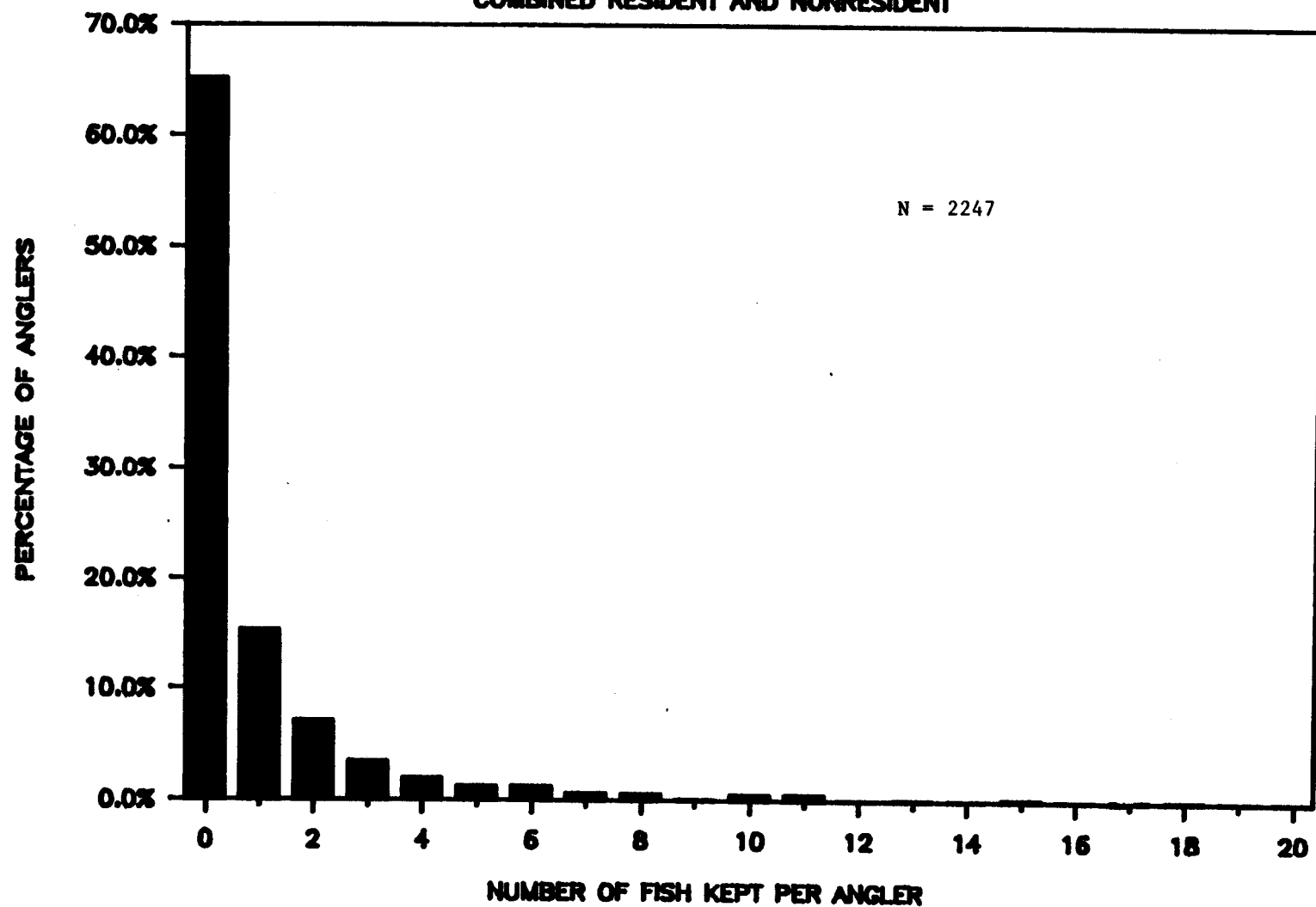


Figure 6. Percentage of resident and nonresident steelhead anglers catching a given number of steelhead.

Table 5. Total number of steelhead harvested in spring 1987 for resident and nonresident anglers by section and month.

Section	Fish harvested January	Fish harvested February	Fish harvested March	Fish harvested April	Total fish harvested
SNAKE RIVER					
1	309	120	60	0	489
2	<u>181</u>	<u>95</u>	<u>17</u>	<u>52</u>	<u>345</u>
Snake R. totals	490	215	77	52	834
CLEARWATER RIVER					
3	576	670	748	241	2,235
4	266	361	352	129	1,108
5	138	748	1,530	636	3,052
6	52	26	301	181	560
7	0	189	301	189	679
Clearwater totals	1,032	1,994	3,232	1,376	7,634
SALMON RIVER					
10	112	120	172	34	438
11	43	223	43	17	326
12	206	120	129	138	593
13	0	17	17	0	34
14	120	344	378	86	928
15	215	808	1,711	181	2,915
16	17	181	413	86	697
17	43	223	1,315	636	2,217
18	0	34	378	138	550
19	9	17	567	920	1,513
20	<u>146</u>	<u>86</u>	<u>206</u>	<u>438</u>	<u>876</u>
Salmon R. totals	911	2,173	5,329	2,674	11,087
Oxbow	0	0	9	0	9
Boise R.	<u>52</u>	<u>26</u>	<u>120</u>	<u>43</u>	<u>241</u>
STATEWIDE TOTALS	2,485	4,408	8,767	4,145	19,805

Table 6. Total number of steelhead harvested in spring 1987 for resident anglers by section and month.

Section	Fish harvested January	Fish harvested February	Fish harvested March	Fish harvested April	Total fish harvested
SNAKE RIVER					
1	257	120	60	0	437
2	<u>164</u>	<u>95</u>	<u>17</u>	<u>52</u>	<u>328</u>
Snake R. totals	421	215	77	52	765
CLEARWATER RIVER					
3	533	481	525	103	1,642
4	240	309	232	103	884
5	95	628	1,066	421	2,210
6	53	26	224	69	362
7	<u>0</u>	<u>189</u>	<u>275</u>	<u>172</u>	<u>636</u>
Clearwater R. totals	911	1,633	2,322	868	5,734
SALMON RIVER					
10	112	120	146	34	412
11	43	223	43	17	326
12	206	120	129	138	593
13	0	17	17	0	34
14	94	335	318	86	833
15	189	722	1,290	172	2,373
16	17	155	396	9	577
17	43	223	1,281	602	2,149
18	0	34	369	121	524
19	9	17	541	825	1,392
20	146	86	206	438	876
Salmon R. totals	859	2,052	4,736	2,442	10,089
Oxbow	0	0	9	0	9
Boise R.	52	26	120	43	241
STATEWIDE TOTALS	2,243	3,926	7,264	3,405	16,838

Table 7. Total number of steelhead harvested in spring 1987 for nonresident anglers by section and month.

Section	<u>Fish harvested</u> January	<u>Fish harvested</u> February	<u>Fish harvested</u> March	<u>Fish harvested</u> April	Total fish harvested
SNAKE RIVER					
1	52	0	0	0	52
2	<u>17</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>17</u>
Snake R. totals	69	0	0	0	69
CLEARWATER RIVER					
3	43	189	223	138	593
4	26	52	120	26	224
5	43	120	464	215	842
6	9	0	77	112	198
7	0	0	26	17	43
Clearwater R. totals	121	361	910	508	1,900
SALMON RIVER					
10	0	0	26	0	26
11	0	0	0	0	0
12	0	0	0	0	0
13	0	0	0	0	0
14	26	9	60	0	95
15	26	86	421	9	542
16	0	26	17	77	120
17	0	0	34	34	68
18	0	0	9	17	26
19	0	0	26	95	121
20	0	0	0	0	0
Salmon R. totals	52	121	593	232	998
Oxbow	0	0	0	0	0
Boise R.	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
STATEWIDE TOTALS	242	482	1,503	740	2,967

Appendix I. List of steelhead fishing holes within a given section.

SECTIONS

1. **Snake River, below Salmon River:**
Asotin, Heller Bar, Grande Ronde, Lime Point, Captain John Creek
2. **Snake River, above Salmon River to Hells Canyon Dam:**
Imnaha, Pittsburg Landing, Doug Bar
3. **Clearwater River, below Orofino Bridge:**
Lewiston, Potlatch Creek, Hog Island, Lapwai Creek, Myrtle Beach, Cherry Lane, Lenore, Peck, McGill Hole, Pink House, Spalding Park, Slaughterhouse, Cat Hole, Teepee Hole, KOA, Bevenlins
4. **Clearwater River, above Orofino Bridge:**
Greer, Fish Hatchery Hole, Kamiah, Kooskia, Five-Mile, Six-Mile, Miller Hole, Sawmill
5. **North Fork Clearwater River from mouth to Dworshak Dam**
6. **Middle Fork Clearwater River:**
Clearwater to Clear Creek
7. **South Fork Clearwater River:**
Mt. Idaho Bridge, Mile Post 21
10. **Salmon River, below Whitebird Creek:**
Cottonwood Creek, Graves Creek, Deep Creek, Hammer Creek, Divide Creek, Rice Creek, Pine Creek, Snow Hole, Slide Hole, Deer Creek Bridge
11. **Salmon River, Whitebird Creek to Little Salmon:**
Whitebird Creek, Silver Bridge on Time Zone, Blackhawk Bar, Lucille, Slate Creek, Skookumchuck, Race, Fiddle, John Day Creek, Chair Creek, Riggins Boat Ramp
12. **Salmon River, Little Salmon to Vinegar Creek:**
Wind River, Vinegar Creek, Luke and French Creek, Spring Bar, Biggins Hot Springs, Allison Creek, Shorts Bar, Partridge Creek
13. **Salmon River, Vinegar Creek to South Fork:**
Shepp Ranch, Bull Creek, Warren Creek, Mann's Creek, South Fork Hole
14. **Salmon River, South Fork to Middle Fork:**
Mackay Bar, China Bar, Sabe Creek, Whitewater Ranch, Corn Creek, Chamberlain Creek, Buckskin Bills, Five-mile Creek, Bargamin Creek, (Salmon Falls - Boat), Long Tom Bridge, Big Mallard Creek, Little Mallard Creek, Bear Creek Hole, Smith Gulch

Appendix I. Continued.

15. Salmon River, Middle Fork to North Fork:

Owl, Pine, Spring Creek, Indian, Dump, Panther Creek, Deadwater, Shoup, Colson Creek, Rams Head Lodge, Dutch Oven, Cove Creek, Newland Ranch, Trapper Gulch, Ebenizer Flats,

16. Salmon River, North Fork to Lemhi River.

Ramshorn, Salmon, Carmen, Lemhi, Fourth of July Creek, Kriley, Red Bluff

17. Salmon River, Lemhi River to Pahsimeroi River.

Ellis Down to Lemhi, Pahsimeroi, Dug Out, Shoup Bridge, Williams Lake, Twelvemile Creek, Iron Creek, Hot Creek, Cronks Canyon, Boat Hole, Sevenmile Creek, Elk Bend, Midway

18. Salmon River, Pahsimeroi River to East Fork:

Challis, Warm Springs Creek, Bayhorse, Morgan Creek, Chivers Access, Highway 93 Bridge

19. Salmon River, above the East Fork:

Basin Creek Down, Sunbeam Dam, Clayton, Robinson Bar, Yankee Fork, Thompson Creek, Squaw Creek, Stanley, Valley Creek, Redfish Lake Creek, Rough Creek, Holman Creek, Deadmans Rock, Ranger Hole, Torreys

20. Little Salmon River:

Rapid River, Pollock, Stinky Hot Springs, Boulder Creek

27. Snake River, Oxbow:

28. Boise River:

RIVER LOCATION CODES

Snake River, below Salmon River	01
Snake River, above Salmon River	02
Clearwater River, below Orofino Bridge	03
Clearwater River, above Orofino Bridge	04
North Fork Clearwater River	05
Middle Fork Clearwater River	06
South Fork Clearwater River	07
Selway River	08
Loches River	09
Salmon River, below Whitebird Creek ...	10
Salmon River, Whitebird Creek to Little Salmon	11
Salmon River, Little Salmon to Vinegar Creek	12
Salmon River, Vinegar Creek to South Fork	13
Salmon River, South Fork to Middle Fork	14
Salmon River, Middle Fork to North Fork	15
Salmon River, North Fork to Lemhi River	16
Salmon River, Lemhi River to Pahsimeroi River	17
Salmon River, Pahsimeroi River to East Fork	18
Salmon River, above the East Fork	19
Little Salmon River	20
South Fork Salmon River	21
Middle Fork Salmon River	22
North Fork Salmon River	23
Lemhi River	24
Pahsimeroi River	25
East Fork Salmon River	26
Snake River, Oxbow	27
Boise River	28

ETHICS AND COURTESY

Improved steelhead runs to Idaho have caused tremendous increases in numbers of anglers. This increase in anglers has created litter problems and conflicts between anglers. Your help is needed to assure that you and other anglers have an enjoyable fishing trip.

PLEASE:

Do not litter. Place lure and bait packages, beverage containers and other trash in proper receptacles or carry it out with you. Use sanitary facilities wherever possible.

Avoid conflicts with other anglers. If someone else is fishing a hole, wait your turn. Boat anglers should avoid crowding bank anglers or crossing lines. Bank anglers should recognize that often boats must pass through narrow slots close to shore. Try not to restrict their passage. Power boats should avoid floatboats and wading anglers and be aware of the impacts of speed, noise and wakes.

Littering, trespass and human wastes are leading to loss of fishing access. Conflicts between anglers may lead to restrictions on fishing methods. Protect your fishing and help assure that everyone has an enjoyable experience by practicing courtesy.

**IDAHO DEPARTMENT
OF FISH AND GAME**

JERRY M. CONLEY, DIRECTOR
600 S. Walnut St. Phone 334-3700
P.O. Box 25 Boise, Idaho 83707

IDAHO 1987 SPRING**Steelhead Seasons
and
Regulations**

Resident Fishing License \$18.50
Nonresident Fishing License \$36.50
Steelhead Permit (Lic. Required) \$6.50

GENERAL INFORMATION**LICENSES — STEELHEAD PERMITS**

Anyone, except those expressly exempt, must have a valid fishing license and steelhead permit to fish for, reduce to possession, or catch and release steelhead.

Children (including nonresident children) under the age of 14 are exempt from purchasing steelhead permits. They may fish without permits if they are accompanied by a valid permit holder, provided that any fish caught must be recorded on the permit holder's card and counted in the permit holder's legal bag and possession limit.

A resident child under 14 may purchase a permit so that he may catch his or her own limit of steelhead. Any person who does not qualify as a resident must have a nonresident season fishing license before purchasing a steelhead permit.

In order to qualify for resident status, a person must be domiciled in the State for at least six months.

FISHING IN BOUNDARY WATERS

SNAKE RIVER BETWEEN IDAHO AND OREGON OR WASHINGTON: The holder of a valid Idaho fishing license may fish the Snake River where it forms the boundary between the states of Idaho and Oregon or Washington, subject to the fish and game laws of Idaho but may not fish from the shoreline, sloughs or tributaries on the Oregon or Washington side. An Oregon or Washington license holder has the same rights and restrictions with reference to the Idaho side.

Any angler who fishes on the Snake River or any other water forming an Idaho boundary is entitled to only one daily bag limit per day regardless of the number of licenses he may possess.

SEASONS AND LIMITS

- Daily bag, possession, and season limits for the Snake, Salmon and Clearwater rivers are not cumulative limits. For example, an angler may take a total of 20 steelhead during the Spring 1987 season. However, only 10 of those fish may be taken from the Boise River.

SALMON RIVER from its mouth upstream to Long Tom Creek near the Middle Fork Salmon River, including the Little Salmon from its mouth upstream to the highway 95 bridge near Smokey Boulder Road.

Season: January 1, 1987 through March 31, 1987.

Limits: 3 per day
9 in possession
20 per season

Salmon River from Long Tom Creek to the mouth of Redfish Lake Creek.

Season: January 1, 1987 through April 30, 1987.

Limits: 3 per day
9 in possession
20 per season

Special Restrictions: Steelhead are the only game fish that may be reduced to possession between Horse Creek and North Fork Salmon River during steelhead season.

BOISE RIVER from its mouth upstream to Barber Dam.

Season: January 1, 1987 through April 30, 1987.

Limits: 2 per day
4 in possession
10 per season

Barbless hooks are not required to fish for steelhead in the Boise River.

SNAKE RIVER from the Washington state line at the confluence of the Snake and Clearwater rivers upstream to Oxbow Dam, including that portion of the the Clearwater River from its confluence with the Snake River upstream to the Memorial Bridge of U.S. Highway 12 at Lewiston.

Season: January 1, 1987 through April 30, 1987.

Limits: 3 per day
9 in possession
20 per season

- Barbless hooks are not required to fish for steelhead above Hells Canyon Dam.

Special Restrictions:

- Fishing from a boat within 150 yards of Hells Canyon Dam is prohibited.

CLEARWATER RIVER AND MIDDLE FORK CLEARWATER RIVER from the Memorial Bridge of U.S. Highway 12 at Lewiston upstream to a posted line 150 yards downstream of the mouth of Clear Creek; North Fork Clearwater River from its mouth upstream to 100 yards below Dworshak Dam; South Fork Clearwater River from its mouth upstream to the confluence of American and Red rivers.

Season: January 1, 1987 through April 30, 1987.

Limits: 3 per day
9 in possession
20 per season

Special Restrictions:

- Fishing from the shoreline along the perimeter of Dworshak National Fish Hatchery is prohibited.
- Fishing from any watercraft is prohibited between a posted line 100 yards upstream from the mouth of the North Fork Clearwater River and the Ahsahka Highway Bridge.
- Fishing from motorized watercraft is prohibited from the Clearwater River Bridge at Orofino upstream to the mouth of Clear Creek.

METHODS OF TAKE

- No person shall kill or retain in possession any steelhead which has been hooked other than in the head. Any steelhead hooked other than in the head must be released unharmed.
- Any steelhead caught in a legal manner must be either released or killed immediately after it is landed.
- Steelhead may be taken only with barbless hooks. Bending the barb down to the shank of a single, double, or treble hook will meet this requirement.
- All fish that are hooked, landed, and not immediately released shall be counted in the limits of the person hooking the fish.
- Only steelhead which have been marked by clipping the adipose fin, as evidenced by a HEALED scar may be reduced to possession in the Snake, Clearwater and Salmon River drainages. EXCEPT, in the Snake River from the Idaho-Washington state line upstream to the Oregon-Washington state line, including the Clearwater River from its mouth to the Memorial Bridge of U.S. Highway 12 at Lewiston, steelhead EITHER with dorsal fins measuring 2 inches or LESS in height OR marked by clipping the ventral fin as evidenced by a HEALED scar may also be reduced to possession.

CATCH-AND-RELEASE

- Any person may fish for steelhead on a catch-and-release basis in any water open to trout fishing EXCEPT in the Middle and South Forks of the Salmon River, their tributaries, and in the Salmon River from Lake Creek near Riggins to Long Tom Creek near Middle Fork Salmon River.

Only artificial lures or flies with SINGLE barbless hooks are permitted when fishing in catch-and-release waters. All steelhead caught in catch-and-release waters shall be released unharmed immediately.

However, once an angler has attained his bag, possession or season limit on those waters with steelhead limits he must cease fishing for steelhead including catch-and-release fishing.

TO RELEASE FISH UNHARMED:

1. Do not squeeze the fish.
2. Do not touch the gills or hold fish by gill covers.
3. Leave the fish in the water while removing the hook.
4. Use long-nosed pliers to rotate the hook from the fish's mouth. If the hook cannot be easily removed, cut the leader and release the fish.
5. If the fish is exhausted, hold it in an upright position in the water and gently move it back and forth until it is able to swim away.

Using these precautions will permit the fish to survive for another day.



Barbless hooks are usually not difficult to remove from fish. Barb (1) is easily bent down (2) by moderate pressure applied with pliers.

IDENTIFICATION OF SPECIES IN POSSESSION AND DURING TRANSPORTATION OR SHIPMENT

No person shall have in the field or in transit any steelhead trout from which the head or tail has been removed.

ANGLERS, WHICH STEELHEAD CAN YOU KEEP?

IS YOUR STEELHEAD MISSING A LEFT VENTRAL FIN?

IF IT IS...SAVE THE HEAD—
here's why:

The missing left ventral fin signals the presence of a small coded wire tag implanted in the nose cartilage of the fish. The tag is used in a variety of experiments designed to perpetuate the runs of steelhead into Idaho. Each tag assumes a great deal of importance. If your fish is missing the left ventral fin, remove the fish's head and return it to a local conservation officer or Fish and Game office (or freeze it until you can turn it in).



STEELHEAD

"Steelhead" are defined as rainbow trout over 20 inches in length taken from the Snake River drainage below Oxbow Dam, the Salmon River

CLEARWATER RIVER above the Memorial Bridge — Only steelhead with a missing adipose fin (as evidenced by a healed scar) may be kept.



SNAKE and LOWER CLEARWATER RIVERS — On the Snake River from the Idaho-Washington border upstream to the Oregon-Washington border, and the Clearwater River from its mouth to the Memorial Bridge of U.S. Highway 12 at Lewiston, you may keep steelhead with either a missing adipose fin (as evidenced by a healed scar), or a dorsal fin less than 2 inches high when fully extended, or a missing ventral fin. (As evidenced by a healed scar).



SNAKE RIVER above the Washington-Oregon border and the **SALMON RIVER** drainage — Only steelhead with a missing adipose fin (as evidenced by a healed scar) may be kept.



PERMIT VALIDATION

When a steelhead trout has been hooked, landed, and reduced to possession, the angler must immediately:

- Completely remove one numbered notch from the permit;
- Look up the number code from the location code list and write it in the space provided; and,
- Enter the month and day the fish was caught.

For example, a fish caught from the Salmon River between the Middle and North Forks on October 22 would be entered as:

Fish	Month/Day	Location Code
1	10/22	15

REMOVE NOTCH

However, when a steelhead is released unharmed, as in catch-and-release fishing, the angler is not required to make an entry on the permit.

STEELHEAD HARVEST SURVEY

Steelhead harvest and angler participation are estimated by a telephone survey conducted within a few weeks after the season closes. You may be called and asked about your effort and success. Please save your permit until 3 months after the season has closed or until you are contacted by an Idaho Fish and Game caller.

SALMON RIVER BOATING PERMITS

Permits for boating the Salmon River between Corn Creek and Long Tom Bar from June 20 through September 7 are required. Contact the U.S. Forest Service, State Creek Ranger Station, for permit information — telephone 830-2211.

Submitted by:

Thomas J. McArthur
Fisheries Staff Biologist

Approved by:

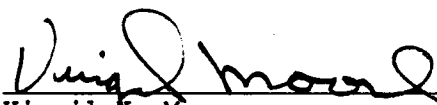
IDAHO DEPARTMENT OF FISH & GAME



Jerry M. Conley, Director



David L. Hanson, Chief
Bureau of Fisheries



Virgil K. Moore
Fishery Research Manager